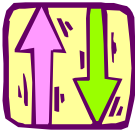


APPENDIX G - Caltrans District 5

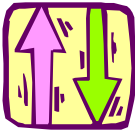
10-Year ITS Plan

<u>Project Description</u>	<u>Program Year & Cost (\$Millions)</u>										
	1	2	3	4	5	6	7	8	9	10	10+
SR 101 Santa Barbara Ramp Meters		3.20	2.60	2.60							
SR 1 Santa Cruz Ramp Meters	2.60										
D5 Changeable Message Signs	0.60	0.00	0.60	0.30	0.30	0.15	0.00	0.00	0.30	0.30	
SR 1 Monterey Ramp Meters					4.00						
SR 101 Salinas Ramp Meters						3.00					
SR 101 San Luis Ramp Meters										3.60	
SR 101 Santa Maria Ramp Meters							2.80				
SR 101 Prunedale Ramp Meters									1.60		
SR 101 Nipomo Ramp Meters											1.60
SR 101 Five Cities Ramp Meters								5.00			
SR 101 Atascadero Ramp Meters											3.20
SR 101 Paso Robles Ramp Meters											2.60
D5 Basic TMC	0.50	0.50			0.50					0.50	
Fixed Highway Advisory Radio Sta.		0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Surveillance Station Infill	0.40	0.40	0.70	0.70	0.60	0.60	0.60	0.60	0.60	0.60	2.90
Closed Circuit TV Surveillance	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
FY Total	4.60	4.70	4.50	4.20	6.00	4.35	4.00	6.20	3.10	5.60	10.80
Ten Year ITS Program cost	58.05										



SR 101 SANTA BARBARA RAMP METERS

<u>Interchange</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Hollister			0.2							
Storke-Glen Annie			0.2							
Los Carnerros			0.2							
Fairview			0.4							
Route 217			0.4							
Patterson			0.4							
Turnpike			0.4							
El Sueno			0.4							
Route 154/State		0.4								
La Cumbre		0.4								
Las Pasitas		0.4								
Mission		0.4								
Carrillo		0.4								
Castillo		0.4								
Garden		0.4								
Milpas		0.4								
Cabrillo				0.4						
Olive Mill				0.2						
San Ysidro				0.2						
Scheffield				0.2						
Evans				0.2						
Padaro Lane				0.2						
South Padaro Ln				0.2						
Santa Monica				0.2						
Linden				0.2						
Casitas Pass Rd				0.2						
Rincon				0.2						
Route 150				0.2						
Total		3.2	2.6	2.6						

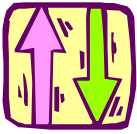


SR 1 SANTA CRUZ RAMP METERS

<u>Interchange</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Freedom Blvd	0.2									
Rio Del Mar Blvd	0.2									
State Park Dr	0.2									
Park Ave	0.2									
Bay Ave	0.4									
41st Ave	0.4									
Soquel Ave	0.4									
Morrissey Blvd	0.4									
Emeline St	0.2									
Total	2.6									

SR 1 MONTEREY RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Route 68 (South)					0.4					
Munras					0.4					
Aguaquito					0.4					
Route 68 (North)					0.4					
Del Monte					0.4					
Route 218					0.4					
Ord Village					0.4					
Fort Ord Main Gate					0.4					
12th Street					0.4					
South Marina					0.2					
Reservation					0.2					
Total					4.0					

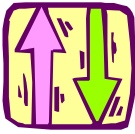


SR 101 SALINAS RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Airport						0.4				
Sanborn						0.4				
John St.						0.4				
Market						0.4				
Main						0.2				
Laurel						0.6				
Boronda						0.6				
Total						3.0				

SR 101 SAN LUIS RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Los Osos Valley Rd.							0.4			
Prado Rd.							0.4			
Madonna							0.4			
Marsh							0.4			
Broad St.							0.4			
Santa Rosa							0.4			
California							0.4			
Grand							0.4			
Monterey							0.4			
Total							3.6			



SR 101 SANTA MARIA RAMP METERS

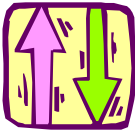
<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Clark								0.4		
Santa Maria Way								0.4		
Betteravia								0.4		
Stowell								0.4		
Main St.								0.4		
Donovan								0.4		
Broadway								0.4		
Total								2.8		

SR 101 PRUNEDALE RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Russell-Espinosa								0.4		
Route 156								0.4		
San Miguel Canyon								0.4		
Crazy Horse								0.4		
Total								1.6		

SR 101 NIPOMO RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Route 166										0.4
Teft										0.4
Willow										0.4
Los Berros										0.4
Total										1.6

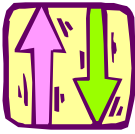


SR 101 FIVE CITIES RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
El Campo									0.4	
Traffic Way									0.2	
Grand									0.4	
Briscoe/Halcyon									0.4	
Oak Park									0.6	
Fourth Street									0.6	
Five Cities Drive									0.2	
Price (South)									0.2	
Wadsworth									0.2	
Mattie									0.4	
Shell Beach									0.4	
Avila Road									0.4	
San Luis Bay									0.4	
Lower Higuera									0.2	
Total									5.0	

SR 101 SANTA MARGARITA/ATASCADERO RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Route 58									0.4	
Santa Barbara									0.4	
Santa Rosa									0.4	
Curbaril									0.4	
Route 41									0.4	
Traffic Way									0.4	
San Anselmo									0.4	
Del Rio									0.4	
Santa Cruz									3.2	
Total										

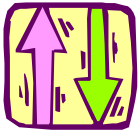


SR 101 TEMPLETON/PASO ROBLES RAMP METERS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
Vineyard										0.4
Las Tablas										0.4
Main										0.4
Route 46 (West)										0.4
Spring										0.2
Pine										0.2
Thirteenth										0.2
Route 46 (East)										0.4
Total										2.6

D5 CHANGEABLE MESSAGE SIGNS

<u>Location</u>	<u>Program Year & Cost</u> <u>(\$Millions)</u>									
	1	2	3	4	5	6	7	8	9	10
SR 101/150									0.15	
SR 101/154 (South)	0.15									
SR 101/1 (South)										0.15
SR 101/154 (North)	0.15									
SR 101/166					0.3					
SR 101/1 (North)			0.3							
SR 101/46			0.3							
SR 101/156 (South)				0.15						
SR 101/156 (North)									0.15	
SR 1/46										0.15
SR 1/68 (South)				0.15						
SR 1/156	0.3					0.15				
Total	0.6	0	0.6	0.3	0.3	0.15	0	0	0.3	0.3



DISTRICT 5 TOS MISCELLANEOUS ELEMENTS

CCTV

County	Route	PM Limits	Number
SBt	101	0.0/7.5	8
SCr	17	0.00/12.5	25
SLO	101	30.1/37.9	8
SLO	101	37.9/42.0	4
SLO	101	1.0/4.0	3
Mon	101	99.3/101.3	2

Total CCTV 50

Notes:

CCTV at approximate 1mile spacing, will be installed with every ramp meter. The ramp meter cost will include CCTV. This table will list CCTV not associated with ramp meter installations.

Fixed HAR

County	Route	PM Limits	Number
SB	101	18.36	1
SB	101	62.67	1
SLO	101	29.07	1
SLO	101	37.86	1
SLO	101	57.92	1
SCr	1	16.82	1
SCr	17	0	1
Mon	1	78.12	1
Mon	101	95.44	1

Total HAR 9

Notes:

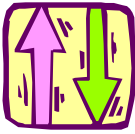
HAR at key state route intersections

Surveillance Stations

County	Route	PM Limits	Number
SB	101	0.0/26.4	27
SB	101	82.3/91.0	10
SLO	101	0.0/30.1	30
Mon	101	85.7/101.3	12
Mon	1	72.7/91.2	18
SCr	1	8.6/17.1	10
SLO	101	30.1/37.9	16
SLO	101	37.9/58.1	23
SCr	17	0.0/12.55	26
Mon	68	4.0/18.0	28
SB	1	23.3/34.8	22
SB	135	8.8/10.8	4
SBt	25	51.4/60.1	18
SBt	156	0.0/18.4	36
SLO	1	18.0/37.0	38
SLO	46	29.8/60.9	62
Total Surveillance Stations			380

Notes:

Surveillance station loops at approximate 1/2 mile spacing infilling coverage between ramp meter mainline loop detectors. The combination of surveillance station loops and ramp meter mainline loop detectors will provide surveillance at approximately 1/2 mile intervals.



Ramp Meters

- Cost will be \$200,000 per ramp meter, includes CCTV, mainline loops, ramp meter, and telephone service for data and video image
- HOV lanes and CHP enforcement pads will be provided on existing ramps where warranted and where excessive cost and R/W will not be involved
- Mitigating measures for traffic relief on local streets is not included in the budgeted cost estimate
- Ramp meter locations identified in this plan are identified as a system tool
- Individual ramps will be evaluated for demand and potential diversion from adjacent ramps during the PSSR stage before installing meters
- If meters are not indicated when the system segment is installed, underground conduit, and ramp and freeway loops will be installed for surveillance purposes
- The locations identified in this plan in program years one through ten are part of the district's Ramp Meter Development Plan
- Locations identified in program years beyond ten years will be added to the Ramp Meter Development Plan as it becomes appropriate
- Per Caltrans Ramp Meter Design Guidelines, when ramps which are identified in the Ramp Meter Development Plan are reconstructed or modified, or when interchanges are added within a segment identified in the Ramp Meter Development Plan, conduit and surveillance loops will be installed
- Traffic Operations shall be consulted on issues identified in the Ramp Meter Design Guidelines

Surveillance Stations

- Cost will be \$20,000 per station for both directions of the highway
- Where ramp meters are installed, will infill between meters
- Where ramp meters are not installed, will be at 0.5 mile intervals
- When highways identified as candidates for surveillance loops are widened or rehabilitated, installation of surveillance loops should be included in the project, and Traffic Operations should be consulted for spacing and location

Changeable Message Signs

- Cost will be \$150,000 per CMS, includes CMS structure, hardware, software, and power and phone service

Highway Advisory Radio

- Cost will be \$100,000 per HAR site, includes, HAR transmitter, antenna, utility services, software, and, message recorders

Basic Transportation Management Center

- Cost will be \$500,000 per year over four years to provide hardware and software to download video and occupancy data, and to download and control ramp meter operations

Closed Circuit TV Cameras

- Cost will be \$150,000 per stand alone CCTV site, includes video camera, mounting, utilities, poles, and codec for the TMC if necessary